

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 401 M STREET, SW, MAIL STOP 6202J WASHINGTON, D.C. 20460



In considering the purchase of ENERGY STAR® compliant office equipment, you may have questions about changing procurement language for possible upcoming contracts. The following sample procurement language is intended for your reference and use. As with all purchases, be sure to ask the appropriate questions to assure that you are getting exactly what you want.

Sample Procurement Language for ENERGY STAR Compliant Computers and Monitors

A vendor must:

- Provide ENERGY STAR compliant computers that are configured so that they automatically enter a low-power mode after a period of inactivity. A computer whose power supply has a maximum continuous output power rating less than or equal to 200 watts (200W) shall automatically enter a low-power "sleep" mode of 30 watts or less after 15-30 minutes of inactivity. A computer whose power supply has a maximum continuous output power rating greater than 200 watts (>200W) shall automatically enter a low-power "sleep" mode of no more than 15 percent of its maximum continuous output power rating after 15-60 minutes of inactivity. The maximum continuous output power rating of a power supply is the value certified by a Nationally Recognized Testing Laboratory (NRTL) such as Underwriters' Laboratories (UL).
- Provide integrated systems, where the computer and the monitor are combined in a single unit, that will enter a low-power mode of no more than 60 watts after a specified period of inactivity.
- Provide computers in low-power mode that will automatically return to active mode upon resumption of system activity or receipt of external input (e.g., mouse movement, keyboard activity, typing of a password, modem interrupts, etc.). An initial keystroke by the user shall not be passed through to the open application. In other words, while the computer is in a low-power mode, the initial keystroke/mouse click shall reactivate the system and shall not have any effect on an open application. When a system awakens from a "sleep" mode, the user shall be returned automatically to the same situation that existed prior to activation of the sleep mode, i.e., all files and software packages in use at the time the sleep mode is triggered shall be returned to the screen in the same condition. If a security code or password is required, the computer shall return to its previous condition after the user enters the security code or password.
- Ship computers with the power-management feature enabled. To ensure that the maximum number of users take advantage of the low-power "sleep" mode, vendors shall ship their computers with the power-management feature enabled. The default time shall be preset for between 15 and 30 minutes for computers whose power supply has a maximum continuous output power rating less than or equal to 200 watts. For computers whose power supply has a maximum continuous output power rating greater than 200 watts, the default time shall be preset for between 15 and 60 minutes.

- Provide ENERGY STAR compliant monitors that have the capability to automatically enter two successive low-power modes. In the first low-power "sleep" mode, the monitor shall consume 15 watts or less after 15-30 minutes of inactivity. If the monitor continues to be idle for a cumulative time of 70 minutes, upon instructions from the CPU, it shall enter a second low-power "deep sleep" mode. An ENERGY STAR compliant monitor in this second low-power mode shall consume 8 watts of electricity or less. Upon resumption of user activity, the monitor shall automatically return to full operational capability. Monitors that have the capability to automatically proceed from active mode to a low-power mode of 8 watts or less are assumed to comply. If any software is required to initiate a monitor's low-power modes, the software shall be shipped with the monitor. The user shall have the ability to change the time settings or disable the low-power modes if needed.
- Provide computers that include one or more mechanisms through which they can activate the low-power modes of an ENERGY STAR compliant monitor. The manner in which a computer can control ENERGY STAR compliant monitors, and any special circumstances that must exist in order for the monitor's power management to be accomplished, shall be clearly specified in product literature. The monitor control requirement does not apply to integrated computer systems. However, integrated computer systems that are marketed and sold as part of a docking system shall have the ability to automatically control the power of an externally-connected monitor.
- Provide computers or monitors with a power management feature that will not inadvertently disconnect the unit while in low-power state from the local area network (LAN). Many manufacturers are testing their ENERGY STAR compliant equipment on networks, and can report, for example, that they are compatible on Novell Netware, Banyan Vines, Windows NT, LAN Manager, and other network systems.

Sample Procurement Language for ENERGY STAR Compliant Copiers

The vendor must:

• Provide copiers that meet the ENERGY STAR guidelines for energy efficiency. Copiers are divided into five categories: low speed standard-sized copiers, medium speed standard-sized copiers, high speed standard-sized copiers, low speed large format copiers, and medium and high speed large format copiers. A large format copier is designed to handle A2 or 17" x 22" paper or larger. Because copier speed, as used in ENERGY STAR specifications, is based on 8.5" x 11" or A4-sized paper, copier speed for a large format copier is determined by converting A2 or A0-sized copies per minute into A4-sized copier speeds. All five categories of ENERGY STAR compliant copiers must be able to shut off after a specified period of inactivity. The ENERGY STAR guidelines are as follows:

Standard-sized Copiers

Copier Speed (copies per minute)	Low-Power Mode (watts)	Low-Power Default Time	Recovery Time 30 seconds	Off Mode (watts)	Off Mode Default Time	Automatic Duplex Mode
0 < cpm 20	None	NA	NA	5	30 min.	No
20 < cpm 44	Varies by copier speed (86-174W)*	15 min.	Yes	15	60 min.	Optional
44 < cpm	Varies by copier speed*	15 min.	Recommended	20	90 min.	Optional

Large Format Copiers

Copier Speed (copies per minute)	Low-Power Mode (watts)	Low-Power Default Time	Recovery Time 30 seconds	Off Mode (watts)	Off Mode Default Time	Automatic Duplex Mode
0 < cpm 40	NA	NA	NA	20	30 min.	No
40 < cpm	NA	NA	NA	40	90 min.	No

^{*} The maximum watts in low-power mode is determined by using the following formula: 3.85 x cpm + 5.

- Ship medium speed and high speed standard-sized copiers with the duplexing function set as the default mode. While the automatic duplex (double-sided copying) mode is optional on ENERGY STAR compliant copiers, EPA recommends that users try this feature on their new copiers. By making more double-sided copies, consumers can decrease paper consumption, save money, and help prevent air pollution.
- Ship copiers with the low-power mode and the off mode enabled. The vendor shall ship medium speed and high speed standard-sized copier models with the default time for the low-power mode set at 15 minutes, and the default time for the auto-off feature set to the levels specified in the tables above.
- Provide data on the time it takes for a copier to warm-up from the off mode or low-power mode. A low-power or auto-off mode with a quick recovery time will reduce the time a user must wait for the copier to begin functioning. In addition to the auto-off and low-power features, a vendor may include a weekly timer (an internal device that turns a copier on and off at predetermined times) on the copier, as long as the timer does not impede the normal operation of the ENERGY STAR features.
- **Provide comparisons of double-sided and single-sided copying speeds.** Some mid- or high-volume copiers have duplexing speeds equal to the single-sided copying speed. However, some are much slower and may affect the productivity of a copier.
- Provide information on the type of recycled paper recommended for the copier model.

 Organizations can help to reduce the flow of solid waste into landfills by using recycled paper in their copiers. The federal government is purchasing paper with a minimum of 20 percent post-consumer

content.

- Provide information on the average time between failure, and the average time between service. Copiers that jam frequently create unnecessary waste. Asking about the double-sided copying jamming rate will provide additional information on the performance of high speed copiers. Manufacturers may refer consumers to independent lab reports on the performance and reliability (including duplexing information, if available) of specific copier models.
- Provide instruction on equipment operation and maintenance including information on ENERGY STAR features. If office equipment is to perform to the full extent of its capability, users need to be educated to ensure that the equipment is properly operated and maintained. Any education and training provided by the vendor must include information on all energy-saving features of each copier, including energy efficiency modes and their operation, duplexing operations and double-sided default programming. Vendors might also use this opportunity to explain the environmental and economic benefits of these features, as well as suggestions for reducing use, such as using electronic mail to reduce the number of copies generated, and the extent to which any supplies or packaging may be returned to the vendor for recycling or remanufacturing. Ideally, this instruction will be provided by vendor-trained and certified personnel.

Sample Procurement Language for ENERGY STAR Compliant Printers and Fax Machines

The vendor must:

• Provide printer and fax models that meet the ENERGY STAR guidelines for energy efficiency.

Models of printers, fax machines, or combination printer/fax machines that meet the specifications below shall have the capability of entering a low-power state after a period of inactivity. Power levels range from 15 watts to 45 watts, based on output speed, i.e., pages per minute.

Product Speed in Pages Per Minute (ppm)	Default Time to Low-Power State Printer & Printer/Fax Devices	Default Time to Low-Power State Fax Machines	Average Power Consumption in Low-Power State
0 < ppm 7	15 minutes	5 minutes	15 W
7 < ppm 14, and all plotters or large format printers	30 minutes	5 minutes	30 W
ppm > 14, and all high end color printers	60 minutes	15 minutes	45 W

• Ship all products with the ENERGY STAR low-power feature activated or enabled. This will eliminate the need for users to configure the power-management feature after delivery, and helps to ensure that the energy-saving feature is used. The vendor shall ship the printer, fax machine, or combination printer/fax models with the default time for the low-power mode set to the levels specified in the table above.

• Provide general information to users regarding the ENERGY STAR features of the product. This information might include the following: a description of the method for changing the power-management settings or default times, a description of other energy-saving features, and a discussion of the savings associated with using the power-management features.

Sample Procurement Language for ENERGY STAR Compliant Scanners

The vendor must:

- Provide scanners that automatically enter a of low-power mode of 12 watts or less when not in use. The low-power mode of an ENERGY STAR compliant scanner is the lowest power state the scanner is designed to enter after some period of inactivity, without actually turning off.
- **Ship scanners with the low-power mode enabled.** The vendor shall ship scanners with the low-power default time set to 15 minutes or less from the time the last image is scanned.
- Provide product literature regarding the ENERGY STAR features of scanners. This information might include a description of the ENERGY STAR Scanner Program and a discussion of the energy savings associated with the product.

Sample Procurement Language for ENERGY STAR Compliant Multifunction Devices

The vendor must:

• Provide multifunction device models that meet the ENERGY STAR guidelines for energy efficiency. ENERGY STAR compliant multifunction device models shall conserve energy by powering down when not in use. In addition, high speed multifunction devices shall be preset with the duplex copier mode as the default. The ENERGY STAR guidelines are as follows:

Standard-sized Models

Multifunction Device Speed (images per minute)	Sleep Mode (Watts)	Sleep Mode Default Time	Automatic Duplex Mode
$0 < \text{ipm} \le 10$	≤ 30	≤ 15 minutes	No
$10 < ipm \le 20$	≤ 120	≤ 30 minutes	No
$20 < ipm \le 44$	≤ 160	≤ 60 minutes	Optional
$44 < ipm \le 100$	≤ 180	≤ 90 minutes	Default (copying only)
100 < ipm	≤ 200	≤ 120 minutes	Default (copying only)

Large Format Models

Multifunction Device Speed (images per minute)	Sleep Mode (Watts)	Sleep Mode Default Time	Automatic Duplex Mode
$0 < \text{ipm} \le 40$	≤ 120	≤ 30 minutes	No
40 < ipm	≤ 200	≤ 120 minutes	No

- Ship multifunction devices with the power-management feature enabled. The vendor shall ship multifunction device models with the default time for the sleep mode set to the levels specified in the tables above.
- Provide general information regarding the ENERGY STAR features of the multifunction device model. This information might include a description of the ENERGY STAR Program, a discussion of the savings associated with using the power-management features, the benefits of duplex copying or printing, and the method for changing the settings or default times.
- Provide information on the type of recycled paper recommended for the multifunction device model.

 Organizations can help to reduce the flow of solid waste into landfills by using recycled paper in their copiers.

 The federal government is purchasing paper with a minimum of 20 percent post-consumer content.

For Additional Information About ENERGY STAR Compliant Office Equipment:

- ! Call the toll-free ENERGY STAR Hotline at 1-888-STAR-YES
- ! View the ENERGY STAR Website at: http://www.epa.gov/energystar.html